WHAT IS CLAIMED IS:

 A method for label edge routing in a wireless network, comprising:

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providing a flow between an application of a mobile unit and a serving node, the flow comprising an outbound flow from the application;

 $\label{eq:continuous} \mbox{receiving at the mobile unit the outbound flow;}$ and

classifying at the mobile unit the flow.

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2. The method of Claim 1, the outbound flow comprising a plurality of outbound packets, the method further comprising:

adding at the mobile unit an outbound label stack to each of the outbound packets, the outbound label stack based on the classification of the flow and comprising at least one label; and

node.

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 The method of Claim 2, further comprising: storing at the mobile unit flow labels for a

forwarding the outbound packets to the serving

classifying the flow comprising determining flow
characteristics for the flow and a flow label for the flow,
the flow label comprising one of the stored flow labels.

plurality of applications of the mobile unit; and

4. The method of Claim 3, the flow further comprising an inbound flow from the serving node, the method further comprising:

storing at the mobile unit the determined flow characteristics for the flow and the determined flow label for the flow;

receiving at the mobile unit the inbound flow, the inbound flow comprising a plurality of inbound packets, the inbound packets each comprising an inbound label stack comprising at least one label; and

retrieving at the mobile unit the stored flow characteristics for the flow and the stored flow label for the flow.

5. The method of Claim 4, further comprising:
 removing at the mobile unit the inbound label
stack from each of the inbound packets; and
 forwarding the inbound packets to the

application.

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 The method of Claim 1, further comprising: generating at the mobile unit a label request for the application;

receiving at the mobile unit a label response based on the label request, the label response comprising at least one label:

determining at the mobile unit flow characteristics and a flow label for the flow, the flow label comprising one of the labels in the label response; and

storing at the mobile unit the flow characteristics and the flow label for the flow.

- 7. The method of Claim 6, the label response based on a label allocation performed at a label server, the label server coupled to the network.
- The method of Claim 6, generating a label request comprising generating an agent solicitation message, the
 agent solicitation message comprising a vendor-specific extension, the vendor-specific extension comprising the label request.
 - 9. The method of Claim 6, receiving a label response comprising receiving an agent advertisement message, the agent advertisement message comprising a vendor-specific extension, the vendor-specific extension comprising the label response.

- 10. The method of Claim 6, further comprising: determining at the mobile unit whether the mobile unit supports label switching; and
- determining at the mobile unit whether the serving node supports label switching.

11. A system for label edge routing in a wireless network, comprising:

means for providing a flow between an application of a mobile unit and a serving node, the flow comprising an outbound flow from the application;

means for receiving at the mobile unit the outbound flow; and

 $$\operatorname{\textsc{means}}$$ for classifying at the mobile unit the flow.

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12. The system of Claim 11, the outbound flow comprising a plurality of outbound packets, the system further comprising:

means for adding at the mobile unit an outbound
15 label stack to each of the outbound packets, the outbound
label stack based on the classification of the flow and
comprising at least one label; and

 $% \left(1\right) =\left(1\right) \left(1\right)$ means for forwarding the outbound packets to the serving node.

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13. The system of Claim 12, further comprising:

means for storing at the mobile unit flow labels for a plurality of applications of the mobile unit; and

means for classifying the flow comprising
25 determining flow characteristics for the flow and a flow
label for the flow, the flow label comprising one of the
stored flow labels.

14. The system of Claim 13, the flow further comprising an inbound flow from the serving node, the system further comprising:

means for storing at the mobile unit the 5 determined flow characteristics for the flow and the determined flow label for the flow;

means for receiving at the mobile unit the inbound flow, the inbound flow comprising a plurality of inbound packets, the inbound packets each comprising an inbound label stack comprising at least one label; and

means for retrieving at the mobile unit the stored flow characteristics for the flow and the stored flow label for the flow.

15. The system of Claim 14, further comprising:
 means for removing at the mobile unit the inbound
label stack from each of the inbound packets; and
 means for forwarding the inbound packets to the
application.

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16. The system of Claim 11, further comprising: means for generating at the mobile unit a label request for the application;

means for receiving at the mobile unit a label response based on the label request, the label response comprising at least one label;

means for determining at the mobile unit flow characteristics and a flow label for the flow, the flow label comprising one of the labels in the label response; and

means for storing at the mobile unit the flow characteristics and the flow label for the flow.

- 17. The system of Claim 16, the label response based on a label allocation performed at a label server, the label server coupled to the network.
- 18. The system of Claim 16, the means for generating a label request comprising means for generating an agent solicitation message, the agent solicitation message comprising a vendor-specific extension, the vendor-specific extension comprising the label request.
- 19. The system of Claim 16, the means for receiving a label response comprising means for receiving an agent advertisement message, the agent advertisement message comprising a vendor-specific extension, the vendor-specific extension comprising the label response.

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20. The system of Claim 16, further comprising:
 means for determining at the mobile unit whether
the mobile unit supports label switching; and
 means for determining at the mobile unit whether
the serving node supports label switching.

21. A system for label edge routing in a wireless network, comprising:

a computer-processable medium; and

logic stored on the computer-processable medium,
the logic operable to provide a flow between an application
of a mobile unit and a serving node, the flow comprising an
outbound flow from the application, to receive at the
mobile unit the outbound flow, and to classify the flow at
the mobile unit.

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- 22. The system of Claim 21, the outbound flow comprising a plurality of outbound packets, the logic further operable to add at the mobile unit an outbound label stack to each of the outbound packets, the outbound label stack based on the classification of the flow and comprising at least one label, and to forward the outbound packets to the serving node.
- 23. The system of Claim 22, the logic further 20 operable to store at the mobile unit flow labels for a plurality of applications of the mobile unit and to classify the flow by determining flow characteristics for the flow and a flow label for the flow, the flow label comprising one of the stored flow labels.

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- 24. The system of Claim 23, the flow further comprising an inbound flow from the serving node, the logic further operable to store at the mobile unit the determined flow characteristics for the flow and the determined flow label for the flow, to receive at the mobile unit the inbound flow, the inbound flow comprising a plurality of inbound packets, the inbound packets each comprising an inbound label stack comprising at least one label, and to retrieve at the mobile unit the stored flow characteristics for the flow and the stored flow label for the flow.
- 25. The system of Claim 24, the logic further operable to remove at the mobile unit the inbound label stack from each of the inbound packets and to forward the inbound packets to the application.
- 26. The system of Claim 21, the logic further operable to generate at the mobile unit a label request for the application, to receive at the mobile unit a label response based on the label request, the label response comprising at least one label, to determine at the mobile unit flow characteristics and a flow label for the flow, the flow label comprising one of the labels in the label response, and to store at the mobile unit the flow characteristics and the flow label for the flow.
- 27. The system of Claim 26, the label response based on a label allocation performed at a label server, the label server coupled to the network.

- 28. The system of Claim 26, the logic further operable to generate a label request by generating an agent solicitation message, the agent solicitation message comprising a vendor-specific extension, the vendor-specific extension comprising the label request.
 - 29. The system of Claim 26, the logic further operable to receive a label response by receiving an agent advertisement message, the agent advertisement message comprising a vendor-specific extension, the vendor-specific extension comprising the label response.
- 30. The system of Claim 26, the logic further operable to determine at the mobile unit whether the mobile unit supports label switching and to determine at the mobile unit whether the serving node supports label switching.

- 31. A mobile unit operable to provide label edge routing in a wireless network, comprising:
- a service access manager operable to receive a flow between an application of the mobile unit and a serving node, the flow comprising an outbound flow from the application and an inbound flow from the serving node;
 - $\hbox{a flow classifier operable to classify the flow;}$ and
- a forwarding information base operable to store 10 flow labels for the flow classifier.
 - 32. The mobile unit of Claim 31, the outbound flow comprising a plurality of outbound packets, the flow classifier further operable to add an outbound label stack to each of the outbound packets, the outbound label stack based on the classification of the flow and comprising at least one label, and to forward the outbound packets to the serving node.
- 33. The mobile unit of Claim 32, the flow classifier further operable to classify the flow by determining flow characteristics for the flow and a flow label for the flow, the flow label comprising one of the flow labels stored in the forwarding information base.

34. The mobile unit of Claim 33, the forwarding information base further operable to store the determined flow characteristics for the flow and the determined flow label for the flow, the inbound flow comprising a plurality of inbound packets, the inbound packets each comprising an inbound label stack comprising at least one label, and the flow classifier further operable to retrieve the stored flow characteristics for the flow and the stored flow label for the flow from the forwarding information base.

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35. The mobile unit of Claim 34, the flow classifier further operable to remove the inbound label stack from each of the inbound packets and to forward the inbound packets to the application.

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36. The mobile unit of Claim 31, the flow classifier further operable to generate a label request for the application, to receive a label response based on the label request, the label response comprising at least one label, to determine flow characteristics and a flow label for the flow, the flow label comprising one of the labels in the label response, and the forwarding information base further operable to store the flow characteristics and the flow label for the flow.

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37. The mobile unit of Claim 36, the label response based on a label allocation performed at a label server, the label server coupled to the network.

- 38. The mobile unit of Claim 36, the flow classifier further operable to generate a label request by generating an agent solicitation message, the agent solicitation 5 message comprising a vendor-specific extension, the vendor-specific extension comprising the label request.
 - 39. The mobile unit of Claim 36, the flow classifier further operable to receive a label response by receiving an agent advertisement message, the agent advertisement message comprising a vendor-specific extension, the vendor-specific extension comprising the label response.
- 40. The mobile unit of Claim 36, the service access
 15 manager further operable to determine whether the mobile
 unit supports label switching and to determine whether the
 serving node supports label switching.

41. A method for label edge routing in a wireless network, comprising:

receiving at the serving node an outbound flow from a mobile unit, the outbound flow comprising a plurality of outbound packets, each of the outbound packets comprising an outbound label stack comprising at least one label, the outbound label stack added to the outbound packets by the mobile unit; and

forwarding the outbound packets to the network 10 based on the outbound label stacks.

- 42. The method of Claim 41, further comprising performing at the serving node a label swap for the outbound packets prior to forwarding the outbound packets to the network.
 - 43. The method of Claim 42, further comprising: removing the outbound label stack from the outbound packets at the network; and
- 20 forwarding the outbound packets to a specified destination.
- 44. The method of Claim 41, further comprising:
 receiving at the network inbound packets for the
 25 application;

adding an inbound label stack comprising at least one label to each of the inbound packets at the network; and

 $\label{eq:forwarding} \text{for inbound packets from the network}$ 30 to the serving node.

- 45. The method of Claim 44, further comprising: performing at the serving node a label swap for the inbound packets; and
- $\qquad \qquad \text{forwarding the inbound packets from the serving} \\ 5 \quad \text{node to the mobile unit.}$

specified destination.

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46. A system for label edge routing in a wireless network, comprising:

means for receiving at the serving node an outbound flow from a mobile unit, the outbound flow 5 comprising a plurality of outbound packets, each of the outbound packets comprising an outbound label stack comprising at least one label, the outbound label stack added to the outbound packets by the mobile unit; and

means for forwarding the outbound packets to the 10 network based on the outbound label stacks.

- 47. The system of Claim 46, further comprising means for performing at the serving node a label swap for the outbound packets prior to forwarding the outbound packets to the network.
- 48. The system of Claim 47, further comprising:

 means for removing the outbound label stack from
 the outbound packets at the network; and

 means for forwarding the outbound packets to a
- 49. The system of Claim 46, further comprising:

 means for receiving at the network inbound
- 25 packets for the application; means for adding an inbound label stack comprising at least one label to each of the inbound packets at the network; and

 $$\operatorname{\textsc{means}}$ for forwarding the inbound packets from the 30 $\,$ network to the serving node.

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50. The system of Claim 49, further comprising:
 means for performing at the serving node a label
swap for the inbound packets; and
 means for forwarding the inbound packets from the
serving node to the mobile unit.

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- 51. A system for label edge routing in a wireless network, comprising:
 - a computer-processable medium; and
- logic stored on the computer-processable medium,

 the logic operable to receive at the serving node an
 outbound flow from a mobile unit, the outbound flow
 comprising a plurality of outbound packets, each of the
 outbound packets comprising an outbound label stack
 comprising at least one label, the outbound label stack
 added to the outbound packets by the mobile unit, and to
 forward the outbound packets to the network based on the
 outbound label stacks.
- 52. The system of Claim 51, the logic further operable to perform at the serving node a label swap for the outbound packets prior to forwarding the outbound packets to the network.
- 53. The system of Claim 52, the logic further 20 operable to remove the outbound label stack from the outbound packets at the network and to forward the outbound packets to a specified destination.
- 54. The system of Claim 51, the logic further operable to receive at the network inbound packets for the application, to add an inbound label stack comprising at least one label to each of the inbound packets at the network, and to forward the inbound packets from the network to the serving node.

55. The system of Claim 54, the logic further operable to perform at the serving node a label swap for the inbound packets and to forward the inbound packets from the serving node to the mobile unit.